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Biography: Timothy P. Taormino is a computer analyst/programmer with the Montgomery County Department of Information Systems and Telecommunications - GIS Team. He is the primary GIS service provider for the Montgomery County Fire and Rescue Service.

Software Used: ArcInfo 7.1, ArcView GIS 3.1a, and ArcView Network Analyst

Hardware Used: Sun UNIX workstation and Windows NT workstation

Printer / Plotter: HP DesignJet 3500CP

Data Source(s): Montgomery County, MD Departments

Web Site (s): <http://www.esri.com/mapmuseum/index.html> and <http://gis.co.mo.md.us/gis/images/gallery/firemap99.pdf>

Abstract Title: Station Location/Resource Allocation Study: Travel distances from existing and proposed Montgomery County Fire & Rescue Stations

Abstract:

The Montgomery County Fire and Rescue Service (MCFRS) commissioned an in-depth study of the Clarksburg area in northwestern Montgomery County to examine population coverage within critical response times and to determine appropriate future station locations. This work was a follow-up to its preliminary study of rescue squad response coverage and in anticipation of the approval of a master plan covering more than 2,000 new residential land parcels in this area.

Previous station locations were based on historic precedent or the availability of public land, without regard to providing the best response to the most people.

The map shows the coverage of the current population from current station locations. The goal was to cover 90 percent of the population within five minutes' travel time (3.0 miles at 35 miles per hour) and 50 percent of the population within seven minutes' travel time (4.3 miles at 35 miles per hour). The ArcView Network Analyst extension was used to determine service areas at the designated distance thresholds.

MCFRS anticipated placing one new station in the Clarksburg area to meet the new demand and address existing service deficiencies. But, after studying this regional map and other maps of more specific areas, MCFRS is now considering adding more than one new station and relocating some of the existing stations to provide better overall service to the rapidly expanding Clarksburg-Germantown-Potomac region.